



# Coronavirus (COVID-19) Infection Survey

## Results for Northern Ireland

31<sup>st</sup> December 2021

## Introduction

This report is the latest in a series of weekly publications which will detail findings for Northern Ireland from the Coronavirus (COVID-19) Infection Survey (CIS). The findings set out in this report relate to the most recent week of the study up to 23<sup>rd</sup> December 2021. CIS aims to estimate how many people have the infection and the number of new cases that occur over a given time as well as estimating how many people have developed antibodies to COVID-19.

The survey over time will help track the extent of infection and transmission of COVID-19 among people living in private households. The sample includes people who would not necessarily have otherwise been tested, and is intended to estimate the number of current positive cases in the community in Northern Ireland, including cases where people do not report to having any symptoms.

**It is important to note that these statistics are based on a survey sample and differ from those reported in the [Department of Health Daily Dashboard](#) which are based on all laboratory confirmed tests for COVID-19 completed in Northern Ireland.**

*To provide estimates of coronavirus (COVID-19) positivity over the Christmas period, we have published headline results in a shortened version of our usual release.*

## Proportion of people in Northern Ireland who had COVID-19

During the most recent week of the study (17<sup>th</sup> December – 23<sup>rd</sup> December), it is estimated that 47,500 people in Northern Ireland had COVID-19 (95% credible interval: 37,800 to 58,600). This equates to 2.59% of the population (95% credible interval: 2.06% to 3.19%) or around 1 in 40 people (95% credible interval: 1 in 50 to 1 in 30). This is based on statistical modelling of the trend in rates of positive nose and throat swab results.

Modelling suggests the trend in the percentage of people testing positive increased in the week ending 23<sup>rd</sup> December in Northern Ireland.

The reported headline positivity estimates contain both Omicron (B.1.1.529) and Delta (B.1.617.2 and its genetic descendants) variants.

As this is a household survey, the statistics refer to infections occurring in private households. The figures exclude infections reported in hospitals, care homes and/or communal establishments. In these settings, rates of COVID-19 infection are likely to be different.

*The estimates are based on confirmed positive test results. The remaining swabs are either negative which are included in the analysis or are inconclusive or test failures which are not included in the analysis. Work is ongoing with the laboratories to understand consistency in the identification of inconclusive results, that could be weak positive results. The impact of this on the estimates of positive infections is likely to be very small and unlikely to affect the trend.*

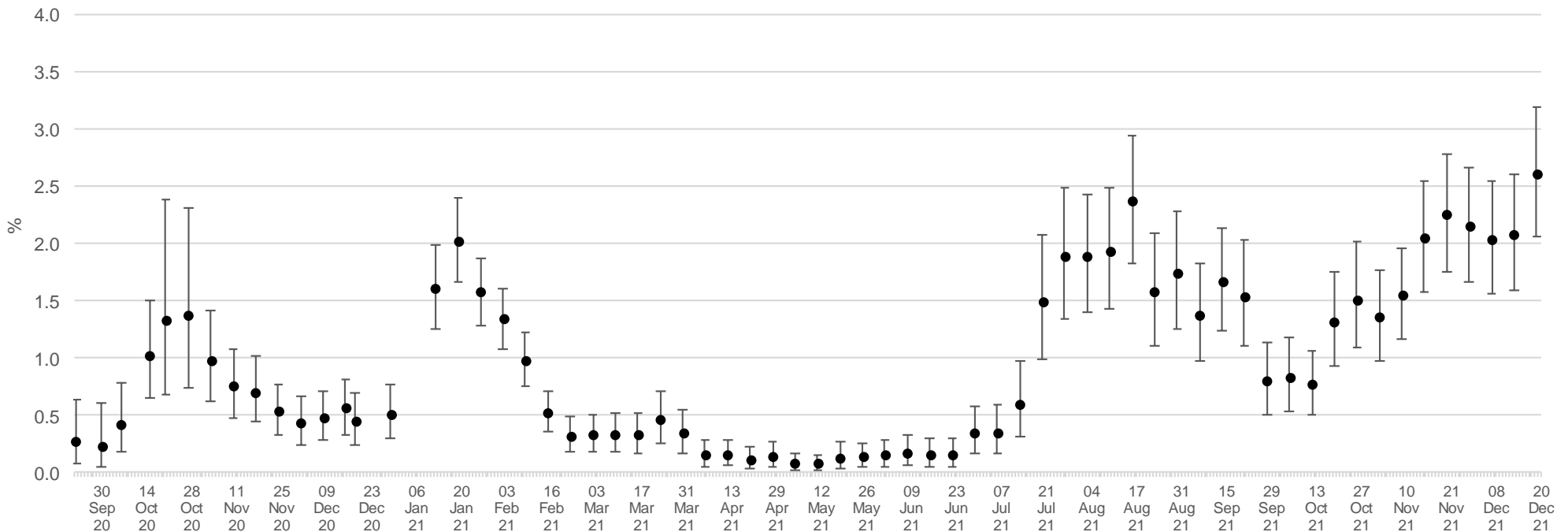
## Positivity over time in Northern Ireland

Due to relatively small number of tests and low number of positives within the sample, credible intervals are wide and therefore results should be interpreted with caution.

Modelling suggests the trend in the percentage of people testing positive increased in the week ending 23<sup>rd</sup> December in Northern Ireland. The official estimates of the percentage of people in NI previously testing positive for COVID-19 are set out in figure 1.

**Figure 1: Estimated percentage of the population in Northern Ireland testing positive for the coronavirus (COVID-19) on nose and throat swabs since 24 September 2020**

Official Estimates



The point estimates and error bars indicated on the chart represent the official estimates reported in previous weeks based on the best information and methods at each point in time.

## Positivity across the UK

- In England, the percentage of people testing positive continued to increase; it is estimated that 2,024,700 people in England had coronavirus (COVID-19) (95% credible interval: 1,951,200 to 2,096,300), equating to around 1 in 25 people.
  - COVID-19 infections increased across all regions of England, with the highest infection levels seen in London (1 in 15) and the lowest in the North East of England (1 in 45).
- In Wales, the percentage of people testing positive continued to increase; it is estimated that 76,500 people in Wales had COVID-19 (95% credible interval: 65,100 to 89,200), equating to around 1 in 40 people.
- In Northern Ireland, the percentage of people testing positive increased; it is estimated that 47,500 people in Northern Ireland had COVID-19 (95% credible interval: 37,800 to 58,600), equating to around 1 in 40 people.
- In Scotland, the percentage of people testing positive continued to increase; it is estimated that 135,400 people in Scotland had COVID-19 (95% credible interval: 117,400 to 154,800), equating to around 1 in 40 people.

## Variant Analysis

The [World Health Organization \(WHO\) have defined names for Variants of Concern](#). These are variants that the UK government has under surveillance. You can find out more in the [SARS-CoV-2 variants of concern and variants under investigation in England briefing document \(PDF, 2.51MB\)](#).

UK Variants of Concern:

- Alpha: B.1.1.7
- Beta: B.1.351
- Gamma: P.1
- Delta: B.1.617.2 and its genetic descendants
- Omicron: B.1.1.529 (which includes sublineages BA.1, BA.2 and BA.3)

The Omicron variant (B.1.1.529) of COVID-19 has changes in one of the three genes that coronavirus swab tests detect, known as the S-gene. This means in cases compatible with the Omicron variant, the S-gene is no longer detected by the current test. When there is a high viral load (for example, when a person is most infectious) absence of the S-gene in combination with the presence of the other two genes (ORF1ab and N-genes) is a reliable indicator of the Omicron variant (B.1.1.529). However, as the viral load decreases (for example, if someone is near the end of their recovery from the infection), the absence of the S-gene is a less reliable indicator of the Omicron variant.

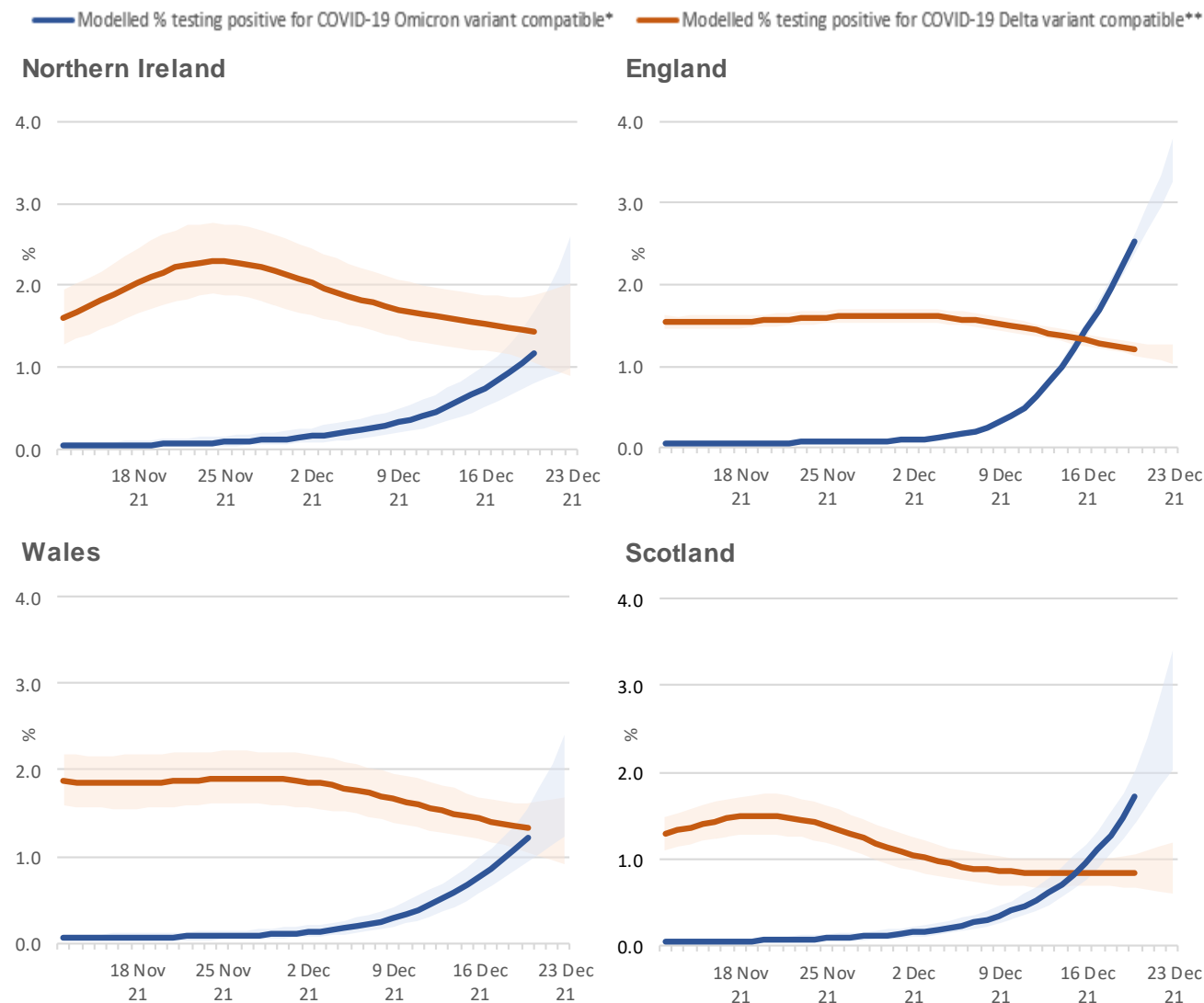
More information on how variants from positive tests on the survey are measured can be found in the ONS [Understanding COVID-19 Variants blog](#) and in the [methodology article](#).

## Variant analysis across the UK

COVID-19 infections compatible with the Omicron variant continued to increase rapidly across England, Wales, Northern Ireland and Scotland in the week ending 23 December 2021 and Omicron is now the most common variant in England and Scotland.

*Data should be treated with caution. In particular, there are small numbers of positives detected in Wales, Northern Ireland and Scotland leading to considerable uncertainty surrounding these estimates. There are further uncertainties given that not all cases that are positive only on the ORF1ab and N-genes (denoted Omicron-compatible) will be the Omicron variant.*

Figure 2a, 2b, 2c, 2d: Modelled percentage of positive cases compatible with the Delta variant and compatible with the Omicron variant across the UK



\* Omicron variant compatible positives are defined as those that are positive on the ORF1ab-gene and N-gene, but not the S-gene.

\*\* Delta variant compatible positives are defined as those that are positive on the ORF1ab, N-gene and S-gene, as well as patterns N+S and ORF+S.

## Methodology

The results are based on nose and throat swabs provided by participants to the study. As well as looking at incidence overall, the survey will be used to examine the characteristics of those testing positive for COVID-19 and the extent to which those infected experience symptoms.

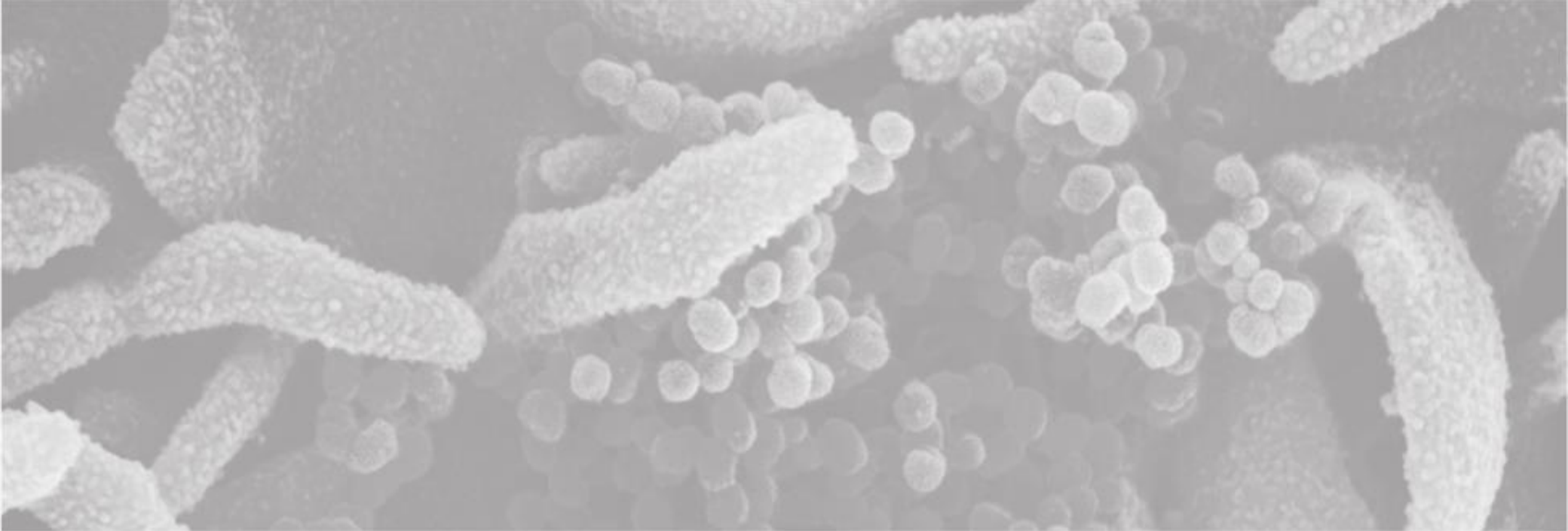
Extending the COVID-19 Infection Survey to Northern Ireland has been achieved by a collaboration between the Department of Health, Public Health Agency (PHA), Northern Ireland Statistics and Research Agency (NISRA) and the Office for National Statistics (ONS) and its various survey partners. Fieldwork commenced in Northern Ireland on 27<sup>th</sup> July 2020. It is important to note that there is a significant degree of uncertainty with the estimates. This is because, despite a large sample of participants, the number of positive cases identified is small. Estimates are provided with 95% confidence intervals to indicate the range within which we may be confident the true figure lies.

The results are for private households only and do not apply to those in hospitals, care homes or other institutional settings.

The Office for National Statistics (ONS) publishes [weekly statistical bulletins and references tables, including results for England, Wales, Scotland and Northern Ireland](#) on its website. Further detail for Northern Ireland is available in the ONS [data tables](#).

Further information about quality and methodology can be found on the [ONS website](#).





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